

## ICE / LOW TEMPERATURE WARNING DEVICE MODEL 'F'

### Specifications :

**Voltage** : 6v OR 12v (Max 16v) . Unit will operate between 3.8v and 16v. **Accuracy** : +/- 1C via precision Thermistor.

**Power Consumption** : Less than 2mA on standby, up to approx 20mA during warning. Internally fused (self resetting) and reverse voltage protected.

### Installation :

#### PLEASE READ THESE INSTRUCTIONS BEFORE COMMENCING INSTALLATION!

The unit comprises of a small integrated LED with its own built-in microprocessor control system, and a remote mounted temperature sensor (PTC precision Thermistor).

Decide on a mounting position for the LED indicator, ensuring there is sufficient space behind the panel to accept the sensor connector (approx 40mm) and make a 14mm hole to for the LED Bezel.

If the unit is to be used outside, and may get wet, seal the bezel into the mounting hole with clear silicon sealant, and run a small amount of sealant between the LED and the bezel itself.

Before pressing the LED and bezel into the hole, connect the remote sensor to the two pin connector at the rear of the LED module, positioned between the red and blue wires. Connector orientation is not important.

Connect the BLUE wire to 0v, and connect the RED wire to a switched supply such that power comes on whenever the vehicle is operational. It is recommended that the unit be wired into a suitable circuit with an external fuse not exceeding 5A rating. (The unit has its own internal fuse, but the wiring run to it should also be protected.)

Once you are sure all wires are connected, press the bezel into the hole.

The temperature probe/cable should be mounted such that the red end of the cable may sense EXTERNAL air that is free from heat from local sources. In a car, this may be in an area of the engine compartment away from heat, or within the door 'shut' area, or under the floor of the vehicle. On a motorcycle this can be under the seat or tank, side panel or similar. To promote long life, the probe should be mounted in a splash free area. Be sure

that the sensor can correctly sample ambient air, unaffected by local heat sources. Avoid running the sensor cable for long distances tied alongside other interference inducing cables, as this may cause temperature errors.

### Operation:

On power-up, the unit will self test and cycle through all three colours for approx 1 second. After this the LED will go out, and remain off until a low temperature condition is signalled.

The unit will activate whenever the temperature falls below approx+3C, and will provide a further warning if below approx 0C.

**At 3C or less, the unit will flash yellow** 10 times over a 5 second period, and remain lit yellow.

**At 0C or less, the unit will flash red** 10 times over 5 seconds and remain lit red.

**If a connection fault exists to the remote sensor**, the LED will light constantly in green. **A green led indicates the unit is NOT operational.**

If a temperature warning exists, it will be cancelled when the power is turned off, or the temperature rises back above 5C.

PLEASE NOTE that the unit gives a warning of low temperature, and the POSSIBILITY of ice formation on the road. It is not in itself a safety device and is intended as an aid to promote safe driving practices. The user is responsible for the safe operation of their vehicle.

### Temperature probe:

The probe end is rubber encased and triple varnish dipped for protection and waterproofing. Do not bend or distort the probe end as this may cause permanent damage or promote cracking that may reduce the waterproofing properties.

## Safety, end of life, and warranty statement



*This unit is an installable component and not a complete system in its own right and therefore requires installation. The installation, use and suitability in a given application is the responsibility of the installer. Any damages or consequences are limited to the replacement of the unit under the 12 month guarantee. Temperature warning is intended to draw the attention of the user to the possibility of low temperatures and possible ice formation and is not an infallible guarantee – common sense should prevail whilst driving or riding. Do not allow the unit to become damaged, wet, dismantled, or make modifications to the enclosure or internal parts. Do not use the unit outside of its operating voltage specification.) At end-of-life this product should be taken to suitable recycling facilities and not put into household rubbish.*